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ABSTRACT

The development and maintenance of a computerized data base at Florida State University and its use in monitoring student retention are discussed. The information system was needed to support a study of persistence of black students and to provide updating on a regular basis of changes in attendance patterns. A system was designed using MARK IV. In addition to its use in monitoring changes in student retention rates, the retention data base can be used for the following purposes: to assess the impact of policy changes/new programs implemented to decrease student attrition rates; to identify members of specific groups for followup surveys; and to develop predictor models of student success. The studies conducted by the college's Subcommittee on Black Student Retention examined retention rates by type of student at date of entry (first-time, transfer, or graduate) and by race (black or white). Study conclusions and recommendations are listed. (SW)

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The Development and Use of a Computerized Data Base for Monitoring Student Retention

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Abstract

This paper discusses the development, maintenance and use of an information system designed to provide Florida State University administrators with both baseline and ongoing information on student retention. The impetus for the development of the information system came from the charge to study persistence of black students and from a need to consider the initiation of programs that might reduce attrition rates. Since there was virtually no easily accessible retention information available, a system was designed using a high-level language (MARK IV) that would provide a current view of retention problems as well as the capability to monitor the effects of programs initiated to influence attendance patterns.

The Development and Use of a Computerized Data Base for Monitoring Student Retention

Introduction

In Fall 1977, the Equal Educational Opportunity Subcommittee on Black Student Retention was established at Florida State University to determine the problems surrounding retention of black students and offer possible solutions. The committee was also charged to develop procedures for monitoring the progress of Florida State University in lowering attrition rates, particularly among black students.

Virtually no retention information was readily available at Florida State on students. To conduct the study it was necessary to develop a data base which collected not only historical information, but could also be updated on a regular basis to monitor changes in attendance patterns. The decision was made to conduct a retention study which would not only serve the needs of the committee in performing its task, but provide an overall picture of student attrition at Florida State as well.

Purpose

This paper discusses the development and maintenance of the data base, its use in supplying the subcommittee

with initial information for the Retention Study on Blacks, and potential uses in addressing retention rates of other selected groups of students at Florida State.

Methodology

Description of the Retention Data Base

The Retention Data Base is constructed using a combination of internal admissions files and enrollment files. Each Fall Quarter entering students are identified from the Fall Admissions File and added to the Retention Data Base. The data elements listed below are collected from the Fall Admissions File and included on the data base:

1) Social Security Number
2) Student Name
3) Birth Year
4) Sex
5) Race
6) State of Residence at Time of Admission to the University
7) Degree Being Sought
8) Type of Student at Date of Entry
   a. First-Time-In-College
   b. Junior College Transfer
   c. Other Undergraduate Transfer

d. Graduate Student

e. Law Student

9) Date of Entry

10) Highest Degree to Date

11) Admissions Test Scores

Each quarter of the year the Retention Data Base is matched against the enrollment file for that quarter to track students' enrollment patterns. The following data elements are collected and added to the Retention Data Base each time a match occurs:

(1) Quarter

(2) Major

(3) Current Term Hour Load

(4) Classification

(a) Freshman
(b) Sophomore
(c) Junior
(d) Senior
(e) Graduate Student
(f) Post High School Nondegree-seeking
(g) Post Baccalaureate Nondegree-seeking
(h) Temporary Graduate
(i) Transient Student--Dually Enrolled

(5) Termination Code

(a) Withdrew during term
(b) Suspended during term
(c) Suspended at end of term
(d) Deceased

(6) Degree Granted

(a) AA
(b) AS
(c) Bachelor's
(d) Master's
(e) Advanced Master's
(f) Specialist
(g) Law
(h) Doctorate

(7) GPA

Edit checks/reports were developed to insure compatability of data from the admissions files and enrollment files. For example:

> If a student entered the University as a junior college transfer (according to the Admissions File), his classification on the Enrollment File (for the first quarter enrolled) had to indicate a status of Freshman, Sophomore, or Junior. A student could not be transferring from a junior college and enter as a Senior or Graduate Student.

Records which can be corrected by inspection are updated accordingly. Otherwise, original source documents are consulted or the record excluded from the Retention Data Base.

The Retention Data Base contains one other field in addition to the elements cited in preceding sections--the Enrollment Pattern field. The Enrollment Pattern field consists of 30 bytes. Each time the Retention Data Base is matched against an enrollment file the student's numeric class code for that quarter is moved to a byte of the Enrollment Pattern field. If the student is not enrolled that quarter, a blank is moved into the Enrollment Pattern field. The Enrollment Pattern is

particularly useful in identifying "stop-outs" and students who have not been enrolled at the University for a specified number of quarters.

Development of the Initial Data Base

The files used to build the data base were felt to be reliable back to Fall 1974. That quarter was used as the starting point of the study to be conducted by the Subcommittee on Black Student Retention. Fall quarter admissions files (1974 through 1977) were used to select subjects and pertinent characteristics as described in the preceding section. The data base was then matched against enrollment files (Fall 1974 through Fall 1977) to collect the quarterly enrollment information. Edits were run and, when possible, corrections to bad records made. Less than 5% of the initial set of subjects had to be excluded from the file because of "bad data."

Maintenance of the Retention Data Base

Beginning Winter 1978 updating of the Retention Data Base became a routine project. Each quarter the data base is matched to the enrollment file for that quarter and the quarterly enrollment segment of the student's record is updated.

New records were added to the Retention Data Base in Fall 1978. The enrollment patterns of those students are now being tracked also.

Reports from the Retention Data Base

To meet the needs of the Subcommittee on Black Student Retention, reports were designed which looked at enrollment activity by race, type of student at date of entry, class of student at time of entry, and year of entry (ex., Black Junior College Transfers entering as Sophomores during Fall 1975). The reports showed how many of the group continued to enroll in subsequent quarters and at what levels. The reports also showed how many degrees were awarded to the group during a given quarter by type of degree.

In addition to the "general" set of reports, the data base is designed so that specific groups of students can be studied as questions arise. For example:

1. Do attrition rates vary by school/college within the University?

2. Of the Undergraduates who "dropped out", how many received associate degrees before leaving the University?

The Retention Data Base can be used to monitor changes in student retention rates. It can serve as a mechanism

to assess the impact of policy changes/new programs implemented to decrease student attrition rates. The data base can be used to identify members of specific groups for follow-up surveys. As a result of the findings of the Subcommittee on Black Student Retention, drop-outs who had entered the University as junior college transfers were surveyed this past year as to their reasons for not returning to Florida State University. The Retention Data Base can also be used to develop predictor models of student success.

Results/Conclusions

The studies conducted by the Subcommittee on Black Student Retention looked at retention rates by type of student at date of entry (first-time-in-college, transfer, or graduate) and by race (Black or White). Some of the conclusions from those studies are listed below:

1. The retention rates for black students entering Florida State University as first-time-in-college were higher than those of white students entering the University as first-time-in-college.

2. The retention rate for white first-time-in-college students appears to be increasing.

3. The retention rates of black junior college transfers entering Fall 1974 and Fall 1975 are higher than the rates for their white counterparts. The

retention rate of black junior college transfers entering Fall 1976 is lower than the retention rate for white junior college transfers entering that quarter.

4. The retention rate of black junior college transfers appears to be decreasing.

The findings cited above led to the following recommendations by the Subcommittee on Black Student Retention:

1. That retention efforts on behalf of first-time-in-college students be maintained at least at their present levels.

2. That the University closely monitor the progress of junior college transfers during the 1978-79 year.

3. That persistence rates be generated by major programs of study.

4. That if the persistence of black junior college transfers proves to be a continuing problem, the University should undertake new efforts aimed specifically at junior college transfers.

5. That the University examine its admission policies on under-graduate transfers to assess the extent to which students with unduly low probabilities of academic success are being admitted.

6. That the University immediately begin an orientation program for undergraduate minority transfers.

Implications

The data base described in this paper provides the researcher with the capability of studying retention rates for any number of select groups of students. Reports may range from simple frequency counts on return rates by level of students to a more sophisticated study involving follow-up questionnaires. The file can be used to answer questions an academic department has regarding retention of its students. The file can also be used to monitor the progress of programs designed specifically to increase retention.

Specifications for the Retention Data Base are available upon request. Requests should be forwarded to:

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